

## **REMARKS**

### **I. INTRODUCTION**

Favorable reconsideration of this application, in light of the present amendments and following discussion, is respectfully requested.

### **II. STATUS OF THE CLAIMS**

Claims 1, 3-7, 11-15, 17, and 18 are pending; Claims 1, 3, 4, and 15 are amended; Claims 2, 8-10, and 16 are cancelled; and Claims 17 and 18 are newly added herewith. It is respectfully submitted that no new matter is added by this amendment.

### **III. SUMMARY OF THE OFFICE ACTION**

In the outstanding Office Action, Claims 1-3, 8, 9, and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Bair et al.* (U.S. Patent No. 6, 428,589, hereafter *Bair*) taken together with *Davenport et al.* (U.S. Patent No. 2,553,175, hereafter *Davenport*). Additionally, Claims 15 and 16 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Bair* in view of *Davenport*. Claims 4-7, 10, and 12-14 were indicated as allowable.

### **IV. ALLOWABLE SUBJECT MATTER**

Applicants acknowledge with appreciation the indication that Claims 4-7, 10, and 12-14 contain allowable subject matter. It is respectfully submitted that Claims 4-7, 10, and 12-14 remain allowable.

**V. REJECTIONS UNDER 35 U.S.C. § 103(a)**

In the outstanding Office Action, Claims 1–3, 8, 9, and 11 were rejected under 35 U.S.C. § 103(a) as unpatentable over *Bair* in view of *Davenport*.<sup>1</sup> For the reasons discussed below, this rejection is respectfully traversed.

Independent Claim 1, from which Claims 3 and 11 depend, recites in part:

a cyclone separating apparatus comprising: a first cyclone separating dust from dust-ladened air; [and]  
a plurality of second cyclones centrifugally separating fine dust particles from air which is first separated at the first cyclone ....

The outstanding Office Action admits at page 2 that *Bair* does not disclose or suggest second cyclones centrifugally separating fine dust particles from air. The outstanding Office Action then attempts to remedy this admitted deficiency by relying upon *Davenport*. However, Applicants respectfully submit that the applied combination violates the requirements set forth in MPEP §§ 2141–2143.

As set forth in MPEP § 2141.03, a prior art reference must be considered in its entirety, including portions that lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540 (Fed. Cir. 1983). Moreover, the mere fact that references can be combined does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680 (Fed. Cir. 1990). Although a prior art device may be capable of being modified to run the way the apparatus is claimed, there must be a suggestion or motivation in the reference to do so. *Id.* at 682.

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<sup>1</sup> The subject matter of Claim 2 has been incorporated into Claim 1, and Claim 2 has been cancelled. Because Claims 8 and 9 have been cancelled herewith, it is respectfully submitted that their rejection has been obviated.

In this case, *Bair* describes that known multi-stage cyclonic flow vacuum cleaners are disadvantageous as being too complex.<sup>2</sup> Simply put, *Bair* describes that more than one stage of cyclones in a vacuum cleaner is disadvantageous, because the design becomes too complex.

In light of this description, Applicants respectfully submit that *Bair* teaches away from using a plurality of second cyclones, as recited in independent Claim 1. According to *Bair*, a plurality of second cyclones would render the design undesirably complex. Therefore, to combine the teachings of *Bair* with *Davenport* is contrary to the teachings of *Bair* and violates the requirements of MPEP § 2141.03.

Because the outstanding rejection violates the requirements of MPEP § 2141.03, it is respectfully submitted that the outstanding Office Action has failed to provide a *prima facie* case of obviousness. Accordingly, it is respectfully requested that the outstanding rejection of Claims 1, 3, and 11 be withdrawn.

Likewise, with respect to the rejection of Claims 15 and 16 under 35 U.S.C. § 103(a) as unpatentable over *Bair* in view of *Davenport*, this rejection is also respectfully traversed.<sup>3</sup>

Like Claim 1, Claim 15 recites “a plurality of second cyclones centrifugally separating fine dust particles from air, which is first separated at the first cyclone ....”

As noted above, the applied combination of *Bair* with *Davenport* is improperly the result of hindsight reconstruction, and violates the requirements of MPEP § 2141.03. Accordingly, it is respectfully submitted that the outstanding Office Action has not provided a *prima facie* case of

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<sup>2</sup> *Bair*, col. 2, lines 13–25.

<sup>3</sup> The features of Claim 16 have been incorporated into Claim 15, and Claim 16 has been cancelled herewith.

obviousness for Claim 15 for reasons analogous to those set forth for Claim 1, and is therefore respectfully requested that this rejection be withdrawn.

**VI. NEW CLAIMS 17 AND 18**

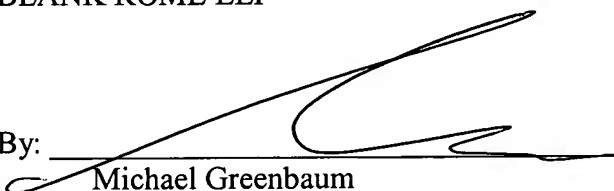
Newly added Claims 17 and 18, which depend indirectly from Claim 15, recite subject matter previously described in the specification as originally filed. Accordingly, it is respectfully submitted that Claims 17 and 18 are also allowable at least for the reasons set forth above with respect to Claim 15.

**VII. CONCLUSION**

Consequently, in view of the foregoing discussion, it is respectfully submitted that this application is in condition for allowance. An early and favorable action is therefore respectfully requested.

Respectfully submitted,

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